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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/036,980	12/31/2001	Eric R. White	VIGN1370-1	5326

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EXAMINER	
WU, QING YUAN	
ART UNIT	**PAPER NUMBER**
2194	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/07/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/036,980	WHITE ET AL.	
	Examiner	Art Unit	
	Qing-Yuan Wu	2194	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *10 January 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-27* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-27* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *9/22/06, 1/10/07*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-27 are pending in the application.

Claim Rejections - 35 USC § 101

2. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. Claims 1-19 and 27 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

4. As to claim 17, the current focus of the Patent Office in regard to statutory inventions under 35 U.S.C. § 101 for method claims and claims that recite a judicial exception (software) is that the claimed invention recite a practical application. Practical application can be provided by a physical transformation or a useful, concrete and tangible result. No physical transformation is recited and additionally, the claimed subject matter lacks a practical application of a judicial exception since it fails to produce a useful, concrete and tangible result. Specifically, the claimed subject matter does not produce a tangible result because the claimed subject matter fails to produce a result that is limited to having real world value rather than a result that may be interpreted to be abstract in nature as, for example, a thought, a computation, or manipulated data. More specifically, the claimed subject matter provides for "interfacing said public API with said at least two heterogeneous underlying workflow engines through said associated workflow engine API...mapping said set of generic objects to native objects of each of said at

least two heterogeneous underlying workflow engines." This produced result remains in the abstract since the public API was neither used nor invoked therefore none of the interfacing functionalities were performed, thus, fails to achieve the required status of having real world value. Claims 1-16, 18-19 and 27 are rejected for similar reason. See MPEP 2107.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 5-8, 13-16 and 23-27 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

a. The following claim language is indefinite:

i. As per claim 27, it is uncertain what applicant mean by "wherein workflow engine APIs of said at least two heterogeneous workflow are incompatible" (i.e. it is assumed that applicant means that applications developed for one API are incompatible with other APIs as described in page 11 paragraph 35 of the specification, since applicant failed to preclude nor defined this limitation).

ii. As per claims 5, 13 and 23, it is uncertain what "an industry standard for workflow management" includes or excludes (i.e. the examiner is unable to determine the metes and bounds of the claim because any industry standard can evolve over time, therefor objects based upon an industry standard that is subject

to change is indefinite).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8. Claims 1-2, 9-10 and 17-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Belknap et al (hereafter Belknap) (U.S. Patent 6,516,356), in view of Applicant Admitted Prior Art (hereafter AAPA).

9. As to claim 17, Belknap teaches the invention substantially as claimed including a computer implemented method for integrating workflow engines comprising:

creating a public API for at least two heterogeneous media devices, wherein the public API comprises a set of generic objects,

wherein said set of generic objects represent functional characteristics common to said at least two heterogeneous media devices [10, 15, 25 Fig. 25; abstract, lines 4-6; col. 1, lines 47-49; col. 2, lines 44-47],

wherein each of said at least two heterogeneous media devices has an associated application program interface and a set of native objects [15, 22, 25, Fig. 1];

interfacing said public API with said at least two heterogeneous media devices through said associated device API for each of said at least two media devices [22, 25, Fig. 1; col. 3, lines 11-14; col. 5, lines 57-59];

mapping said set of generic objects to native objects of each of said at least two heterogeneous media devices [abstract, lines 7-9; col. 1, lines 51-54; col. 3, lines 2-19, 26-33; col. 5, lines 55-57].

10. Belknap does not specifically teach workflow engines nor wherein each of the at least two heterogeneous underlying workflow engines is a computer executable application program operable to manipulate content items in accordance with a process definition. However, AAPA teaches heterogeneous workflow engines [AAPA, pg. 2, paragraphs 4-5; pg. 3, paragraph 7, lines 8-10].

11. It would have been obvious to one of an ordinary skill in the art at the time the invention was made, to have modified the teaching of AAPA with the teaching of Belknap because the teaching of Belknap can further enhance the teaching of AAPA by overcoming the need to continuously update applications in order to utilize a new or updated proprietary device/application by providing a common API [col. 1, lines 30-34; AAPA, pg. 3, paragraph 6, lines 3-5].

12. As to claim 18, Belknap as modified teaches the invention substantially as claimed including:

persistently maintaining a generic object; and delegating at least a portion of said set of generic objects to a set of corresponding native objects at one or more of said underlying workflow engine [col. 2, line 58-col. 3, line 13; AAPA, pg, 2, paragraphs 4, 6-7] (Examiner's interpretation of "persistently maintaining," as any action/non-action that ensure the continue existence of the object since the applicant did not preclude nor define this limitation).

13. As to claim 19, this claim is rejected for the same reason as claim 18 above.

14. As to claim 1, this claim is rejected for the same reason as claim 17 above. In addition, Belknap as modified teaches a plurality of adapters [15, Fig. 1; col. 1, lines 51-54].

15. As to claim 2, this claim is rejected for the same reason as claims 1, and 17-19 above.

16. As to claim 9, this claim is rejected for the same reason as claims 1 and 17 above.

17. As to claim 10, this claim is rejected for the same reason as claim 2 above.

18. Claims 5-7, 13-15, 20, 23-25 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Belknap and AAPA as applied to claims 1, 9 and 17 above, further in view of Schechter et al (hereafter Schechter) (U.S. PG Pub 20020133635 A1).

19. Schechter was cited in the last office action.

20. As to claim 20, this claim is rejected for the same reason as claim 17 above. Belknap and AAPA do not specifically teach mapping said native result to a generic result usable by a generic object from said set of generic objects. However, Belknap disclosed interact with media servers having different operational characteristics [col. 6, lines 30-33]. In addition, Schechter teaches transforming responses from devices having different capabilities into information usable by an application program running on the server [Schechter, pg. 3, paragraph 29, lines 5-13]. It would have been obvious to one of an ordinary skill in the art at the time the invention was made, to have combined the teaching of Belknap, AAPA and Schechter because the teaching of Schechter further enhances the teaching of Belknap and AAPA by providing intercommunication between the requesting application and the different media devices.

21. As to claim 23, Belknap, AAPA and Schechter do not specifically teaches wherein said set of generic objects is maintained based upon an industry standard for workflow management. However, Belknap as modified disclosed the APIs correspond to different member functions of different classes, workflow management, and standards developed for the representation and implementation of workflow products interface [col. 3, line 33-col. 5, line 41; AAPA, pg. 2, paragraph 3 and pg. 4, paragraph 9]. It would have been obvious to one of an ordinary skill in the art at the time the invention was made, to have recognized that the generic object have to be based upon an industry standard (i.e. standards promulgated by the Workflow Management Coalition are well know in the art) for workflow management to overcome the restriction due to

the different vendor implementations (i.e. to allow maximum compatibility between generic objects and proprietary objects).

22. As to claims 24-25, these claims are rejected for the same reason as claim 23 above.

23. As to claims 5-7, these are system claims that correspond to method claims 23-25 above. Therefore, they are rejected for the same reason as claims 23-25 above.

24. As to claims 13-15, these are system claims that correspond to method claims 23-25. Therefore, they are rejected for the same reason as claims 23-25 above.

25. As to claim 27, this claim is rejected for the same reason as claims 17 and 20 above. In addition Belknap as modified teaches wherein workflow engine APIs of said at least two heterogeneous [col. 1, lines 23-34].

26. Claims 8, 16, 21-22 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Belknap, AAPA and Schechter as applied to claim 20 above, further in view of Parnell et al (hereafter Parnell) (U.S. Patent 6,647,396).

27. Parnell was cited in the last office action.

28. As to claims 21-22, Belknap, AAPA and Schechter do not specifically teach wherein said set of generic objects further comprises a payload object, and wherein said payload object associates a set of content items with a process instance. However, Belknap disclosed identifying whether the media object is located locally within the object store or at a remote location [col. 7, lines 4-8]. In addition, Parnell teaches applying content management to workflows [Parnell, col. 3, lines 5-12]. It would have been obvious to one of an ordinary skill in the art at the time the invention was made, to have combine the teaching of Parnell with the teaching of Belknap, AAPA and Schechter to include a payload object that associate a set of content items with a process instance given that the content might have been access previously or will be access multiple times.

29. As to claim 26, this claim is rejected for the same as claims 21-23 above.

30. As to claim 8, this is a system claim that corresponds to method claim 26. Therefore, it is rejected for the same reason as claim 26 above.

31. As to claim 16, this is a system claim that corresponds to method claim 26. Therefore, it is rejected for the same reason as claim 26 above.

32. Claims 3-4 and 11-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Belknap and AAPA as applied to claims 1 and 9 above, further in view of Parnell et al (hereafter Parnell) (U.S. Patent 6,647,396).

33. As to claims 3-4, Belknap and AAPA do not specifically teach wherein said set of generic objects further comprises a payload object, and wherein said payload object associates a set of content items with a process instance. However, Belknap disclosed identifying whether the media object is located locally within the object store or at a remote location [col. 7, lines 4-8]. In addition, Parnell teaches applying content management to workflows [Parnell, col. 3, lines 5-12]. It would have been obvious to one of an ordinary skill in the art at the time the invention was made, to have combine the teaching of Parnell with the teaching of Belknap and AAPA to include a payload object that associate a set of content items with a process instance given that the content might have been access previously or will be access multiple times.

34. As to claims 11-12, these claims are rejected for the same reason as claims 3-4 above.

35. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

5,604,843 to Shaw et al

6,854,123 and 6,675,230 to Lewallen

2002/0052771 to Bacon et al

Response to Arguments

36. Applicant's arguments filed 2/15/06 have been fully considered but they are not persuasive.

37. In the remarks, Applicant argued in substance that:

a. The combination of Belknap and AAPA fails to establish a prima facie case of obviousness at least because not teaching, suggestion, or motivation to do so can be found either explicitly or implicitly in the references themselves or in the knowledge generally available to one of ordinary skill in the art because

1) high level generic commands are from a computer application, they are not part of a common API nor do they represent any functional characteristics common to heterogeneous underlying workflow engines.

2) device level interfaces as disclosed by Belknap does not teach or suggest "workflow engine APIs" because an API is a set of routines, protocols and/or software tools...

3) Belknap does not differentiate between individual APIs and the common API therefore does not teach "interfacing said public API with said at least two heterogeneous underlying workflow engines through said associated workflow engine API ...".

b. Beknap does not teach or suggest "mapping said set of generic objects to native objects of each of said at least two heterogeneous underlying workflow engines".

c. Schechter's adapters are not APIs. They are not associated with any particular application or workflow engine, nor do they have generic or native objects of their own.

Examiner respectfully traversed Applicant's remarks:

38. As to point (a1), Belknap teaches converting high-level generic commands supported by the media manager to device level commands by code mapping modules [col. 2, line 44-col. 3, line 19]. It is noted that the instant when the high-level generic command is being translated by the common API, it is (at the moment) part of the common API which clearly satisfy the claim limitation. In addition, as long as the high level generic commands corresponds to a media device are supported by the media manager, common member functions (common functional characteristics) of the individual APIs of the media devices are capable of being invoked as a result of the high-level generic command [col. 3, line 34-col. 5, line 23].

39. As to point (a2), Applicant's claimed invention does not support applicant's arguments. Claimed subject matter, not the specification, is the measure of invention. Limitations in the specification cannot be read into the claims for the purpose of avoiding the prior art. If Applicant believes the limitation is important feature of the invention, it should be incorporated into the claims for further consideration. In re Self, 213 USPQ 1,5 (CCPA 1982); In re Priest, 199 USPQ 11,15 (CCPA 1978).

40. As to point (a3), Belknap teaches a high-level command processor and device specific code mapping module (public API) and device specific interface [Fig. 1], which provides the functional equivalence of the public API and workflow engine API.

41. As to point (b), given the broadest reasonable interpretation of an "object" as being described as a self-contained data entity that can comprise data and/or procedures to manipulate data [specification pg. 8, paragraph 26], the examiner believed that Belknap's commands (high-level and device-level) to manipulate data objects in media devices which triggers interaction with member functions of media devices is functional equivalent. And, the mapping of high-level commands to device-level commands satisfied the limitation [col. 3, lines 8-19].

42. As to point (c), Applicants argue the patentability of various claims, by individually addressing the reference used to reject the claims. Applicant cannot show nonobviousness by attacking the references individually where, as here, the rejection is based on a combination of references. See In re Keller, 208 USPQ 871 (CCPA 1981). Schechter was brought in solely for the purpose of two-way communications (mapping of responses) via a common API, and the limitations argued are nonetheless been addressed by Belknap, AAPA or combination thereof.

43. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

44. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Qing-Yuan Wu whose telephone number is (571) 272-3776. The examiner can normally be reached on 8:30am-6:00pm Monday-Thursday and alternate Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Thomson can be reached on (571) 272-3718. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Qing-Yuan Wu

Examiner

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